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# Nursing students success : can a reading placement test be a predictor?

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**Nursing students success: Can a reading placement test be a predictor?**

**Turner, Susan Jane, M.S.**

**San Jose State University, 1991**

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NURSING STUDENTS SUCCESS:  
CAN A READING PLACEMENT TEST BE A PREDICTOR?

A Thesis  
Presented to  
The Faculty of the Department of Nursing  
San Jose State University

In Partial Fulfillment  
of the Requirements for the Degree  
Master of Science

By  
Susan Turner  
May 1991

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## ABSTRACT

### NURSING STUDENTS SUCCESS:

#### CAN A READING PLACEMENT TEST BE A PREDICTOR?

by Susan Turner

This thesis studies the use of the ASSET reading placement test scores and attempts to establish whether they are a predictor for success or failure for 90 students enrolled in a first semester nursing course at a community college. The ASSET reading test score was reported by category, placing students in high, medium, and low reading levels. Statistical analyses of the data in relation to students succeeding or failing the course revealed that the ASSET exam is not reliable as a sole predictor of success or failure and that there is no relationship between the exam results and finishing the course.

Further study would be significantly enhanced by use of raw scores instead of high, medium, and low test score categories. In addition, other independent variables such as: (a) overall GPA, (b) reason for dropping, (c) previous education prior to starting the course, and (d) ethnicity would give additional insight to the study.



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## Chapter 1

### INTRODUCTION

The purpose of this study is to ascertain whether the ASSET reading placement test can predict success or failure of a student in a beginning college nursing course. If there is a correlation, students may be able to increase their chances of succeeding by being channeled to remediation before beginning the nursing course work.

#### The Problem

Gavilan College is a community college in Northern California which offers a nursing program leading to a Certified Nursing Assistant certificate, Licensed Vocational Nursing Certificate, or an Associate Degree in Nursing. It is a career ladder program where students may start and stop their education at several points in the program. They leave each level with more advanced job skills and a higher level of certification. They are allowed to reenter at a later date and resume their education at the point where they left. After the first semester of the career ladder, the student may apply to the State of California for a Certified Nursing Assistant (CNA) certificate. After three semesters they may take the examination for a Licensed Vocational Nurse (LVN), and after 5 semesters they may take the licensing examination for a Registered Nurse.

The beginning nursing class (AH 180) is open to all interested students. There are no prerequisites or admission requirements. The course provides nursing theory and laboratory practice in the classroom, and clinical practice within the convalescent hospital setting. It is offered both fall and spring semester every year. Currently there is approximately 40% attrition by the end of the first semester.

Some students excel, while other students consistently receive failing grades on quizzes and tests and either fail or drop by the end of the semester. Oliver (1985) reports that the attrition in similar Associate Degree nursing programs nationwide is also approximately 40%. This is over a two or three year program, not in the first semester alone.

The nursing faculty at Gavilan College questions whether the students lack the reading abilities and mastery of the English language required to understand the text and reading materials. The class presently uses a text aimed at the eleventh grade reading level.

All of the students enrolling at Gavilan College are given the American College Testing ASSET exam which tests reading and math abilities. Currently there are no minimum scores or courses required by Gavilan College as a prerequisite to beginning course work in nursing.

The current 40% attrition rate in the first semester of nursing at Gavilan College is alarming. If students are dropping or failing the course because of a lack of readiness, the college would better help the students by requiring them to complete remedial classes before taking the beginning nursing course. This type of remedial work might help foster a pattern of success for the student, thus increasing their self-esteem. Financially, it would also be helpful for the student as well as the taxpayers who fund this public institution.

#### Research Question

Is there a relationship between reading test levels and whether students drop or fail a beginning nursing course?

#### Purpose and Need

Student success is important for the student as well as the college. The California Task Force to Promote Self-esteem and Personal and Social Responsibility (1990) states that failure to learn can be catastrophic for the individual and staggering in its costs to society. Failure thus increases low self esteem for the individual. It also does not allow the student to enter the work force at a professional level salary and may even necessitate students to continue to use social welfare programs.

The average age of students at Gavilan College is 32 years. Two ethnic backgrounds are predominantly represented, 62.2% Caucasian, and 26.2% Hispanic. In

comparison, the average age of the nursing students is 35 years. The ethnic makeup of the nursing classes is essentially the same as the general population of students at Gavilan College. Many of the nursing students are single parents desperately needing to increase their earning potential. Success in school is critical to meeting that objective. Geiger (1990) states that economic adversity has opened a rare window of opportunity for educating women and minorities and that educating these disadvantaged students can help America regain its competitive edge in the global marketplace. Geiger further stated that this will decrease the tax burden of the welfare system and help to meet the national health care needs by increasing the supply of nurses.

For the college, a position for the failed nursing student goes unfilled for the remainder of the class. If the attrition remains high, the school graduates fewer nurses to meet the needs of the community. Bevis (1982) states that the costs to run a nursing program are very high due to faculty/student ratios, and building and equipment requirements of the accrediting bodies.

#### Definition of Terms

1. Associate Degree nursing program is a 2 or 3 year nursing program in a community or junior college setting. It leads to an Associate of Science Degree in Nursing.

2. AH 180 is an acronym for Allied Health 180. It is the first semester nursing fundamentals course at Gavilan College. Course content includes bedmaking, bathing, lifting and moving patients and vital signs. At the completion of this course, the student is eligible for certification as a certified nursing assistant.

3. ASSET is the placement test given at Gavilan College. It tests reading and math skills. It is leased for use to the college by the American College Testing Company.

4. ACT is the American College Testing Company.

5. Attrition refers to students not continuing in the nursing program for any reason, electively or being failed.

6. Drop refers to students who, on their own, choose not to continue in the nursing program. Reasons may be academic or personal.

7. Fail are students who do not continue in the nursing program because of inadequate academic or clinical performance. The grades earned are a D or an F.

8. Finished are students who complete the AH 180 course with a grade of C or better.

9. Did not finish are students who do not successfully complete the semester because of dropping on their own or receiving a failing grade such as a D or an F.

10. GPA is an acronym for grade point average.

11. English 220 is the remedial English and reading course for students who read below the high school level.
12. English 230 is the remedial English course that is for students who read at the high school level.
13. English 48 is the college level English course that is transferable to a 4 year college or university.
14. Low Reading Level is the lowest reading category that students are placed when taking the ASSET placement test. It corresponds with placement in English 220.
15. Medium Reading Level is the middle level reading category that students are placed when taking the ASSET placement test. It corresponds with placement in English 230.
16. High Reading Level is the highest level reading category that students are placed when taking the ASSET placement test. It corresponds with placement in English 48.

#### Assumptions

The study is based on the following assumptions: (a) students enrolled as of the fourth week of classes have interest in nursing and the subject matter being covered, (b) students that are clearly not interested will drop in that time period, (c) the student sample and data needed to complete the study at Gavilan College were available, and (d) the ASSET Placement test is a reliable and valid exam (American College Testing Company, 1989).



### Research Design

The study focused on whether there was a relationship between dropping and failing the beginning nursing course and reading test levels. All first semester nursing students enrolled in AH 180 during the Fall 1988, Spring 1989, Fall 1989 semesters were studied. All students that were still enrolled in the class as of the first day of the fourth week of classes were used. Classes ranged from 20 to 55 students each semester. A total number of 90 students was studied.

Students who both dropped and failed were used because of the late date at which students may drop. Students may drop until the end of the fourteenth week in an eighteen week semester. Students have little need to receive an F on their transcripts when they can drop at such a late date. These students were denoted as the group who did not finish.

All three semesters were taught by the same instructor. The same grading criteria, text book, and course format were used.

Reading tests categorize students into low, medium, and high reading levels. The tests were graded by computer. The composite score was not reported, but is categorized by level only. The low category signifies a need for remediation and the student is eligible for placement in English 220, a non-transferable remedial course. The medium category means that the student reads at the high school

level and is eligible for placement in English 230, a non-transferable remedial course. The high category means that the student reads at college level and is eligible for placement in English 48, a college level English course that is transferable to a four year college or university.

Although math skills are vital to certain nursing procedures such as administering medications correctly, it is not a skill needed or taught in the first semester of nursing at Gavilan College. Math scores were not used.

Consent of Gavilan College was obtained by the signature on the informed consent (Appendix A and D). Following this approval, application was made to the San Jose State University Institutional Review Board - Human Subjects Committee (Appendix B and C). Following this approval, data collection was begun.

The reading test levels and course grades were obtained from the Admission and Records office. Students were not identified in the study by their names or their social security numbers. They were identified by a numbering system, 1 thru 90.

Data were noted on the tally sheet. The tally sheet identified (a) status (finish/did not finish), (b) the grade received, and (c) the reading level (Appendix E).

This study examined the reading test level of students who did not finish with students who finished the course with a passing grade. Using the SPSS PC+ statistical

software package, descriptive statistics, frequency distributions, and Chi Square tests were done to analyze the data.

#### Scope and Limitations

Not all students who drop do so because of poor academic performance. Limitations of the study are that other reasons for dropping or failing were not studied. These reasons may be personal problems, financial problems, lack of interest, or failing the clinical portion of the course. Explorations of other reasons were not incorporated into the study.

Not all students are good test takers. Some students have severe anxiety over tests which may affect their placement test scores, though they may actually have adequate reading skills. The test taking abilities and anxiety levels of the students were not studied.

Reasons causing high or low reading test scores or high or low grades were not explored. Such factors as ethnic background that may affect language ability may certainly exist, but were not studied. The study only determined whether there was a relationship between dropping or failing and reading test levels in beginning nursing students.

All students, regardless of their reason for dropping were studied. When one is trying to see if the reading level is a predictor for failure, it was crucial that all students be considered in the study.

## Chapter 2

### CONCEPTUAL FRAMEWORK AND REVIEW OF RELATED LITERATURE

Adult learning theory is highly applicable to teaching at a community college. For adults to learn effectively, they must see the relevance of the learning material, and how it will fit into their life or career (Kemp, 1985).

Knowles (1978) states that the adult approaches education wanting to apply tomorrow what is learned today, and the immediacy of the application is critical. Nursing at the vocational level is very practical in orientation thus reinforcing the learn today, apply it tomorrow approach. From the first semester the student is learning what will be applied to the clinical practice. Students learn the basic procedures necessary to safe patient care, such as bedmaking, bathing, oral care, lifting and moving patients, temperature, pulse, respirations, and blood pressure. Students learn from both demonstration and practice in the classroom, then go to a convalescent facility and use these skills on real patients. Lecture and textbook help to reinforce the skills being taught. Knowles (1969) noted that the adult learns best through applied practice that uses life as well as classroom experience. Learning is a collaborative venture for both the teacher and the student, but the student must possess the necessary reading, language, and English skills to be able to

comprehend the material to be taught.

Oliver (1985) notes that 44% of nursing students admitted to nursing schools do not complete their education over the length of a 2 or 3 year Associate Degree program. Admission is limited to a certain number of students. When a student drops in most Associate Degree programs the space is generally unfilled over the length of the program. This is extremely costly. There needs to be almost the same number of faculty if there are unfilled spaces, the same amount of equipment, building space, and secretarial support. Subsequently, there is less tuition or financial reimbursement since there are less students. The costs are nearly the same, yet the revenues are drastically different.

McDonald, Collins, and Walker (1983) noted their Associate Degree nursing program at Greenville Technical College in Greenville, South Carolina had a 42% dropout rate over a 2 year program. They cited academic failure as the top priority concern. To help rectify this problem, a "Success Program" was designed as a non-credit part of the first-year studies. The remedial program consisted of classes in problem solving, medical terminology, time management, study skills, stress management, and values clarification. Attrition was reduced to 16% over a two year period.

Reed and Hudepohl (1983) noted that selective admissions are no longer the solution. Nursing schools must

increase their retention. These authors cite that there has been a decline of applicants and fewer students having a high academic rank. They further state that many of the outstanding woman students who may have entered nursing are now entering other professions such as medicine, computers, and business. Reed and Hudepohl (1983) noted that a few men are now entering nursing, but the percentage of men to women is very small. Of the students who are enrolling as nursing students, the study states that a significant weakness was noted in verbal and math skills, although it is unclear how this was evaluated or tested.

Smith (1990) noted that nursing student retention is becoming a critical issue. Nursing retention is affected by: (a) the shortage of working registered nurses, (b) decreasing pool of student applicants, (c) increasing educational expenses and, (d) declining financial support. Worrell (1990) reports that there is a decline in the academic ability of entering nursing students.

The literature is inconsistent in evaluating aptitude test scores and correlating it with success of beginning nursing students (Donsky & Judge, 1981; Capoor, 1982; Abbott, 1986). These studies reflect opposing sides as to whether the test scores can predict success.

Donsky and Judge (1981) noted that academic variables such as ACT scores, high school grade point average, and previous college grade point average were consistent

predictors of success. This study also noted that non-academic variables such as age, previous nursing experience, financial hardships, and commitment to education were important factors.

Capoor (1982) states that aptitude test scores are good predictors of success in nursing course grades, as well as success on state board examinations for licensure. Yet, findings of a study done at Santa Rosa Junior College (1984) disagree and noted that reading and math tests were unable to predict success in any college courses.

Abbott (1986) evaluated the teaching faculty perceptions of the ASSET exam with other testing tools, and found that they overwhelmingly preferred the ASSET exam. The preferences were based on the following: (a) directions of student's interests, strengths, and deficiencies were more clear, (b) scoring by computer was readily available, and (c) counseling and research support was readily available from the American College Testing company that furnishes the ASSET exam. Validity studies (American College Testing Company, 1989) support that the ASSET exam is reliable and valid. No literature was found correlating the success of nursing students with placement scores on the ASSET exam.

The inconsistencies of the literature substantiate the need to investigate whether a reading placement test can predict success or failure. Clearly, nursing schools must

become more cost effective and graduate a greater percentage of those who initially enroll. Students dropping out or failing, result in unfilled spaces in nursing schools and decrease the number of nurses able to serve the community.

If, in fact, low test scores can predict failure, remediation programs must be set up so students enrolling in beginning nursing courses may succeed. This success will give the students job skills as well as fill a community need for more nurses.



### Chapter 3

#### METHODOLOGY

All test scores of first semester nursing students enrolled in AH 180 during the Fall 1988, Spring 1989, Fall 1989 semesters were studied. All test scores of students that were still enrolled in the class as of the first day of the fourth week of classes were used. A total number of 90 test scores of students were studied. The study focused on whether there was a relationship between dropping or failing the beginning nursing course and reading test levels.

The tests were administered by Gavilan College testing department and were graded by computer. Scoring placed students in high, medium, and low reading levels. The low category signified a need for remediation and the students were eligible for placement in English 220, a non-transferable remedial course. The medium category meant that the student read at the high school level and were eligible for placement in English 230, a non-transferable remedial course. The high category means that the student read at college level and was eligible for placement in English 48, a college level English course that is transferable to a four year college or university.

Consent to access of grades and test scores was obtained from the Registrar on the informed consent (Appendix A). Following this approval, application was made

to the San Jose State University Institutional Review Board - Human Subjects Committee (Appendix B). An addendum to the initial application (Appendix C) was sent to the committee clarifying that social security numbers would not be used; a chronological numbering system would be used for ordering the data. A statement that course grades would also be obtained for use in the study was also included as a proposal revision.

A copy of the revised consent (Appendix D) reflecting these changes was signed by the Gavilan College President. The Registrar was not available to sign the latter consent due to resignation from the position. A copy of the revised consent was then forwarded to the Management Information Systems office giving permission to release the data when requested. Following this approval, data collection was begun.

The reading test levels and course grades were obtained from the Admissions and Records office for students still enrolled in the course as of the fourth week of classes during the Fall 1988, Spring 1989, and Fall 1989 semesters. The list included grade received and reading level from the ASSET placement test.

Students were not identified in the study by their names or their social security numbers. They were identified by a numbering system, 1 thru 90. Data were noted on the tally sheet (Appendix D). The tally sheet

noted the status (finish/did not finish), the grade received as well as the reading test level.

This study examined the reading test level of students who did not finish with students who finished the course with a passing grade. Using the SPSS PC+ statistical software package, descriptive statistics, frequency distributions, and Chi Square tests were done to analyze the data. Numerical values were given to: (a) the letter grades (Table 1), (b) the reading levels (Table 2) and, (c) students finishing and students that did not finish (Table 3).

Frequency distribution tables were done for the following: (a) grade point average, (b) status (finished/not finished), and (c) reading group. The average GPA earned was computed for each of the three reading groups. A Chi square test for a significant relationship between the reading groups and student's status (finish/did not finish) was also completed.

Table 1

Investigator-assigned Numerical Values for Grades

Grade	Value
A+	4.3
A	4.0
A-	3.7
B+	3.3
B	3.0
B-	2.7
C+	2.3
C	2.0
C-	1.7
D+	1.3
D	1.0
D-	0.7
Drop	0.2
F	0.0

Table 2

Investigator-assigned Numerical Values for Reading Levels

Reading Level	Value
High	1
Medium	2
Low	3

Table 3

Investigator-assigned Numerical Values for Students

Students	Value
Finish	1
Did not finish	0

## Chapter 4

### ANALYSIS AND INTERPRETATION OF DATA

Frequency distribution by grade (Table 4) showed that out of 90 students enrolled in AH 180 in Fall 1988, Spring 1989 and Fall 1989: (a) 6.7% of the students failed the course, (b) 15.6% dropped the course before finishing, (c) there were no students receiving the grade of D, (d) 4.4% received the grade of C, (e) 26.7% received the grade of B, and (f) 46.6% received the grade of A. Overall, 22.2% of the students did not finish (Table 5). This is below the expected 40% attrition. Students that withdrew during the first three weeks of class were not used. All of the other students (78.8%) passed, with a very high percentage of A's and no D's.

A frequency distribution table by reading level (Table 6) found: (a) 40.0% were in the high reading group, (b) 32.2% were in the medium reading group, and (c) 27.8% were in the low reading group. Calculating the average GPA for each reading group (Table 7) revealed the following: (a) mean GPA of 3.17 for those in the high reading group, (b) mean GPA of 2.71 for those in the medium reading group, and (c) mean GPA of 2.19 for those in the low reading group. This is meaningful in that students with higher grades had higher reading test scores proportionately.

Table 4

Frequency Distribution by Grade for AH 180\*

Grade	Frequency	Percent
A+	4	4.4
A	20	22.2
A-	18	20.0
B+	8	8.9
B	10	11.1
B-	6	6.7
C+	2	2.2
C	1	1.1
C-	1	1.1
D+	0	0.0
D	0	0.0
D-	0	0.0
Drop	14	15.6
F	6	6.7
Total	90	100.0

\* Grades for Fall 1988, Spring 1989, and Fall 1989.

Table 5

Frequency Distribution by Status in AH 180\*

Investigator			
Assigned			
	Value	Frequency	Percent
Finish	1	70	77.8
Did not finish	0	20	22.2
Total		90	100.0

\* Fall 1988, Spring 1989 and Fall 1989.

Table 6

Frequency Distribution By Investigator-assigned Reading  
Level Value

Assigned			
Reading Level	Value	Frequency	Percent
High	1	36	40.0
Medium	2	24	32.2
Low	3	25	27.8
Total		90	100.0

Note: Reading level values for Fall 1988, Spring 1989  
and Fall 1989.



Table 7

Mean GPA by ASSET Test Reading Level

Reading Level	Number of	
	Students	Mean GPA
High	36	3.17
Medium	29	2.71
Low	25	2.19
Total	90	

Table 8

Mean GPA by Status (Finish/Did Not Finish)

	Number of	
	Students	Mean GPA
Finish	70	3.50
Did Not Finish	20	0.14*
Total	90	

\* Note: Drops were given a numerical value of 0.2 to be used in the calculations, otherwise this would have been 0.

Students that finished (Table 8) had a mean GPA of 3.50 for the course. Students that did not finish had a mean GPA of 0.14 for the course. This would have been a mean GPA of 0 if drops had not been given a numerical value of 0.2 to be used in the calculations.

Some of the students who tested into the low reading level, English 220, finished the course with a grade of A or A-. Student code number (Appendix E) 9, 15, 17, 21, 27, 35, 36, 39, 44, 51, and 78 all received grades of A or A- despite their low reading test placement. On the other hand, student code number 25, 32, 34, 38, 41, and 43 all were placed in the highest reading level, English 48, but failed to finish the course and received an F or a W. This is evidence that the ASSET placement exam is non-predictive of success or failure.

The Chi square test (Table 9) for significant relationship between reading group and finishing indicated that there was no significant relationship between these variables. The probability value calculated was .1492. Since the value is greater than .05, it is not statistically significant.

Of the students who did not finish: (a) 6 (30%) were in the high reading group, (b) 5 (25%) were in the medium reading group, and (c) 9 (45%) were in the low reading group. Of the students who finished: (a) 30 (42.9%) were in the high reading group, (b) 24 (34.3%) were in the medium

reading group, and (c) 16 (22.9%) were in the low reading group.

Table 9

Chi Square Test to Test Significance of the ASSET Placement Test as a Significant Predictor of Success in AH 180\*

	Reading Level		
	High	Medium	Low
	<u>n</u> (%)	<u>n</u> (%)	<u>n</u> (%)
Finished ( <u>n</u> =70)	30 (83.3)	24 (82.8)	16 (64.0)
Did Not Finish ( <u>n</u> =20)	6 (16.7)	5 (17.2)	9 (36.0)
Total	36	29	25

$$\chi^2 = 3.80483; \quad p = .1492.$$

\* Fall 1988, Spring 1989, and Fall 1989.

Of the students in the high reading group, 30 (83.3%) finished the course, and 6 (16.7%) did not complete the course. In the medium group 24 (82.8%) finished the course while 5 (17.2%) failed to finish. In the low group 16 (64%) finished and 9 (36%) did not finish the course. While the percentage of students not finishing increased with the lowering of reading test scores, these data were somewhat surprising. The percentage of students did not increase significantly and is the crux of the study. In the high

group (Table 10) 24 students received A's, 6 students received B's, there were no C's or D's and there were 3 Drops and 3 F's. These students got mainly A's or did not finish (drops and F's), which leads one to ponder "why did they not finish?" Very likely it was unrelated to the reading test score since they did well on the reading test. Possibilities for consideration would be that they were failed because of poor clinical performance, the students decided they were not interested in nursing after the fourth week of classes, or the students might have had poor study habits with no reading problem. Since the data utilized only indicated a final grade, without names or other identifying data it was impossible to ascertain whether the reason for failure or dropping was academic performance or clinical performance or reasons of a personal nature.

It was noted that students who were in the high reading group had a higher mean GPA, and that students in the low reading group had the lowest mean GPA. This suggests that there is a relationship (as should be expected) between reading level and academic performance, however, results indicate that there was no relationship between reading level and status. Therefore, reading level did not serve as a viable predictor of ability to finish the nursing course, in this study and should be looked at in conjunction with other indicators, rather than as a sole factor.

Table 10

Grades by Reading Level

	Reading Level			Total
	High	Medium	Low	
A	24	9	9	42
B	6	13	5	24
C	0	2	2	4
D	0	0	0	0
Drop	3	3	8	14
F	3	2	1	6
Total	36	29	25	90

## Chapter 5

### CONCLUSIONS AND RECOMMENDATIONS

Based on the variables studied, reading level does not appear to be a viable single predictor of ability to finish the beginning level nursing course. Dropping or failing may not be due to a lack of reading skills but other variables such as (a) motivation, (b) attitude, (c) changing of interest, or (d) inappropriate social or clinical skills reflected in failing clinical performance. If, in fact, all students failed or dropped because of academic reasons, then based on this study, the ASSET placement test scores would not be considered a predictor of success or failure in the course.

It would be valuable to replicate the study at a later date, but with some modifications. The use of raw scores instead of reading test level categories would be a far more meaningful predictor. One could then do a regression analysis with a variety of other independent variables such as (a) GPA, (b) reason for dropping, (c) previous education, and (d) ethnicity. To have the raw reading score as a continuous variable would be extremely helpful in analyzing the data and predicting success or failure.

It is imperative that nursing schools reduce their attrition rates and graduate more nurses to meet the community needs. It is important to continue to explore the

reasons for the high attrition in order to develop strategies for reducing the attrition and graduate more nurses.

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APPENDIX A  
College Consent Letter

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School of the Applied Arts and Sciences • Department of Nursing  
One Washington Square • San José, California 95192-0057 • 408/924-3130

February 27, 1990

Susan Turner  
17695 Holiday Drive  
Morgan Hill, CA 95037

Dear Registrar:

I am currently working to complete the requirements for a Master of Science Degree in Nursing at San Jose State University. A research component including a thesis is required for the degree.

The objective of my thesis is to evaluate whether the ASSET placement test reading scores can predict failure or success in Allied Health 180, the first semester nursing course.

The data collection involves a review of the reading placement test scores of students enrolled in Fall 1988, Spring 1989 and Fall 1989. Anonymity of the students will be protected; confidentiality will be maintained by a coding system using the last four digits of their social security numbers. Group data will be reported, and no specific students will be named.

I have spoken with Karen Bedell about my needs. It is her opinion that there are no legal problems and feels that this study will benefit the nursing program and the college as well as meeting my graduation requirements.

I am a full time instructor at Gavilan College. Since this data will be part of my thesis presented to San Jose State University, it is my understanding that your approval is needed. If additional information is needed, I will be happy to supply it on your request.

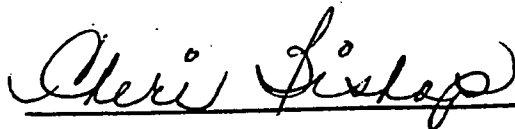
Any questions or complaints regarding this project may be directed to Dr. Mary Reeve, Nursing Department, at (408) 924-3165. Concerns related to subjects rights should be directed to Dr. Serena Stanford, Associate Academic Vice President for Graduate Studies and Research, at (408) 924-2480.

Thank you for your assistance.



Susan Turner

Permission granted for obtaining composite english scores of first semester nursing students.



Cheri Bishop, Registrar

2/27/90

Date

cc John Holleman, President

Karen Bedell, Nursing Director

APPENDIX B  
San Jose State University  
Institutional Review Board Application



# SAN JOSE STATE UNIVERSITY FOUNDATION

38

University form to be submitted to SJSU Foundation with any graduate student research protocol involving human subjects.

Research Protocol Title: Nursing students success:  
Can Placement Tests Be a Predictor

Graduate Student(s): Susan Turner

Responsible Faculty Member: Dr. Mary Reeve

Department: Nursing Department

As the responsible faculty member for the research conducted by the above graduate student(s), I believe that the research protocol follows University and Federal policy for protection of human subjects in research and for obtaining informed consent from research subjects, as outlined in the materials provided by SJSU Foundation.

Mary Reeve  
Signature of Responsible Faculty Member

July 1, 1990  
Date



Date: Submitted 7/19/90 Screened \_\_\_\_\_ Reviewed 39

**Request to use Human Subjects in Research**

Two full copies of the request and supporting materials are required.

Prior approval by the Human Subjects Institutional Review Board is required for all (a) research involving SJSU students, staff, or faculty as subjects or (b) research involving human subjects to be conducted by SJSU students, staff or faculty or (c) research involving human subjects to be conducted on the SJSU campuses or properties or in programs directed by SJSU.

Name: Susan Turner Dept: Nursing - Graduate Student  
Phone: work 848-4867 during fall/spring home 778-7775 during summer  
eves & wknds  
Address: 17695 Holiday Drive, Morgan Hill, CA 95037

Campus Affiliation: faculty student staff non-SJSU  
If student, name and department of faculty advisor: Nursing

Title of proposed project: Nursing students success: Can Placement scores be a Predictor?

Abstract: Placement test scores will be examined of first semester nursing students. The study will correlate whether students who drop or fail have lower reading placement test scores than those students who finish.

Please answer all questions. Each answer will be verified by the IRB. Sample or possible answers to most questions are listed in Attachment A

**Review**

Number of Subjects: 90 Age of Subjects: 18 to 65

Type of Subjects: First semester nursing students at Gavilan College

Procedure for selecting subjects: All students enrolled in AH 180 from Fall 1988 thru Fall 1989.

Proposed research method: Ex post facto Correlational study

Proposed treatment: Analysis of retrospective data utilizing college placement scores

Procedure for assigning subjects to treatment groups: students will be segregated into two groups: 1) students who finished the course

Will a control group be used: yes no not applicable(N/A)

What kinds of data will be collected: Placement test scores

What kinds data collection instruments or procedures will be used: tally sheet noting the reading placement test score and whether the student finished the course or not.

Name of data collection instruments or procedures: Appendix C 40  
Tally sheet for data collection

Is a copy of each data collection instrument attached: (yes) no NA

Is a written description of each data collection procedure attached:

(yes) no NA

Will subjects' names be identified with the data: yes (no)

What is the procedure for informing subjects of the nature of the research and their rights as research subjects: . . . . .

written verbal (NA)

Is the procedure for informing subjects attached: yes no (NA)

Does the procedure for informing subjects inform them:

of possible risks and potential benefits: yes no (NA)

that their participation is voluntary: yes no (NA)

that they may refuse to participate or withdraw at any time:  
yes no (NA)

that their refusal to participate will not affect their rights to receive services: yes no (NA)

how to report any problems: yes no (NA)

how to obtain assistance in the event of harm or other problems which might have been caused by their participation in the research: yes no (NA)

If a written procedure to inform subjects is to be used, is it on SJSU letterhead: yes no (NA)

Procedure to obtain consent: \_\_\_\_\_

Is the consent form attached: (yes) no NA . . . . .

Describe any special safety procedures to be used: Data will be kept in a locked file cabinet in my office at Gavilan College, Life Science Building, Room 111.

Possible Risks: \_\_\_\_\_

Category of Risk (select one): Minimal to None

Consent has been obtained from the Gavilan College Registrar to obtain data utilizing only the last 4 digits of students social security Number and the reading placement that they received. No names or entire social security Numbers will be used, thus making it impossible to identify students. Consent attached.

**APPENDIX C**

**Institutional Review Board Application - Addendum**

August 6, 1990

Susan Turner

17695 Holiday Drive

Morgan Hill, CA 95037

Dear Mr. Cloud,

The data collection of my thesis involves a review of the reading placement test scores of students enrolled in the first semester nursing course at Gavilan College and comparing them to their final course grades. Anonymity of the students will be protected; confidentiality will be maintained by not using names or social security numbers. A numbering system utilizing the numbers 1 thru 90 will be used to identify the data. Group data will be reported and no specific students will be named.

Attached is a revised consent signed by the President of Gavilan College reflecting the changes we discussed, (1) the numbering system for identifying students, and (2) the addition of obtaining course grades for use in the study.

Please do not hesitate to contact me if you have any further questions.

Sincerely,

A handwritten signature in cursive script, appearing to read "Susan Turner".

Susan Turner

APPENDIX D  
College Consent Letter - Addendum

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School of the Applied Arts and Sciences • Department of Nursing  
One Washington Square • San José, California 95192-0057 • 408/924-3130

August 6, 1990

Susan Turner  
17695 Holiday Drive  
Morgan Hill, CA 95037

Dear Dr. Holleman;

I am currently working to complete the requirements for a Master of Science Degree in Nursing at San Jose State University. A research component including a thesis is required for the degree.

The objective of my thesis is to evaluate whether the ASSET placement test reading scores can predict failure or success in Allied Health 180, the first semester nursing course.

The data collection involves a review of the reading placement test scores of students enrolled in Fall 1988, Spring 1989 and Fall 1989 and comparing them to their course grades.. Anonymity of the students will be protected; confidentiality will be maintained by not using names or social security numbers. A numbering system utilizing the numbers 1 thru 90 will be used to identify the data. Group data will be reported, and no specific students will be named.

I have spoken with Karen Bedell about my needs. It is her opinion that there are no legal problems and feels that this study will benefit the nursing program and the college as well as meeting my graduation requirements.

I am a full time instructor at Gavilan College. Since this data will be part of my thesis presented to San Jose State University, it is my understanding that your approval is needed. If additional information is needed, I will be happy to supply it on your request.

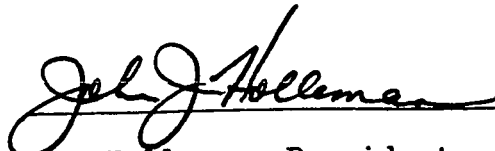
Any questions or complaints regarding this project may be directed to Dr. Mary Reeve, Nursing Department, at (408) 924-3165. Concerns related to subjects rights should be directed to Dr. Serena Stanford, Associate Academic Vice President for Graduate Studies and Research, at (408) 924-2480.

Thank you for your assistance.



Susan Turner

Permission granted for obtaining reading scores  
and course grades of first semester nursing students.



Dr. Holleman, President

August 7, 1990

Date

cc Karen Bedell, Nursing Director

APPENDIX E  
Tally Sheet For Data Collection



## Appendix E

Tally Sheet for Data Collection

Student		
Code	English	Course
Number	Course	Grade
1	230	B+
2	230	B-
3	230	W
4	230	B+
5	48	A-
6	48	A
7	220	C
8	220	C-
9	220	A
10	230	B-
11	230	W
12	48	A
13	48	B+
14	230	B
15	220	A-
16	230	B-
17	220	A-
18	230	B
19	230	B
20	48	B

Tally Sheet for Data Collection (continued)

Student		
Code	English	Course
Number	Course	Grade
20	48	B
21	220	W
22	48	A
23	48	B
24	220	B+
25	48	F
26	230	A
27	220	A-
28	220	W
29	220	W
30	48	A+
31	230	A
32	48	W
33	48	A-
34	48	W
35	220	A-
36	220	A
37	48	A-
38	48	F
39	220	W
40	48	A

Tally Sheet for Data Collection (continued)

Student		
Code	English	Course
Number	Course	Grade
41	48	W
42	230	A
43	48	F
44	220	A-
45	230	F
46	230	B-
47	48	A-
48	48	A
49	230	A
50	48	A-
51	220	A-
52	220	B
53	220	W
54	48	A-
55	230	B-
56	48	A+
57	220	B
58	48	A+
59	48	A-
60	230	A-

Tally Sheet for Data Collection (continued)

Student		
Code	English	Course
Number	Course	Grade
61	220	W
62	230	B+
63	220	B
64	48	B+
65	230	A
66	48	A
67	220	W
68	220	W
69	48	A
70	230	A-
71	220	B+
72	230	B-
73	230	W
74	48	B+
75	230	F
76	230	C+
77	48	A
78	220	A-
79	220	F
80	48	A

Tally Sheet for Data Collection (continued)

Student		
Code	English	Course
Number	Course	Grade
81	48	A-
82	48	A+
83	48	A-
84	230	B
85	48	A
86	230	A
87	230	A
88	230	C+
89	48	A
90	48	B